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EXAMINER	
PHAM, HUONG Q	
ART UNIT	**PAPER NUMBER**
3772	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	09/986,305	BORSOI, BRUNO	
	Examiner	Art Unit	
	HUONG Q. PHAM	3772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23 and 25-54* is/are pending in the application.

4a) Of the above claim(s) *10-12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9, 13-23, 25-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3 , 14, 18, 25, 36, and 47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As for claim 1, it is unclear what structure is the recited " means for limit bending" . Is this "means for limit bending" the same structure as the recited structure " one abutment with opposed edges" ?

As for claims 3, 18, 25, 36, and 47, the meaning and the scope of " inextensible " is unclear.

As for claim 14, it is unclear which structure is the "shell" and the " front support".

Claims 2, 4-9, 13, 15-17, 41, 44, 48- 50, and 53 are objected to for being dependent on a rejected claim .

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 3, 8-9, 14, 16, 18, 41, and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Dachgruber et al (6,360,454).

As for claim 1, Dachgruber et al shows every claimed feature of the claim including a rigid frame 24 adapted to cover the joint, said rigid frame 24 comprising means 98 or 100 for allowing bending of the protective article and bending of the joint along at least one bending direction through a predetermined angle of bending, said means 98 or 100 comprising at least one bending zone between opposed ends of the frame 24 , said bending zone including at least one abutment 98 or 100, with opposed edges, said opposed edges being spaced apart a predetermined amount in a first and unbent position of the protective article and spaced apart by an amount less than said predetermined amount in a second and bent position of the protective article,

said abutment 98 or 100 of said means for allowing bending comprising means 102 for limiting bending of the frame and limiting bending of the joint along said bending direction at said predetermined angle of bending, said rigid frame 24 having a rigidity of a magnitude capable of avoiding hyper- flexion of the joint beyond said predetermined angle of bending (note that the predetermined angle of bending can be determined by a user's hand or foot) while the protective article is in said second and bent position. Also, note that the stiffener adjusters 102 assist in limiting or resisting flexion of the frame 24.

Note in column 4, lines 5-10 ,Dagruber et al teaches that the structure of his device allows the foot wear to be flexed up to an angle 45 degree .Note that the frame 24 can be bent at a predetermined angle : the bending angle can be determined by the user who can either flexes the device 24 by the user's foot or hand; where opposed edges of structure 100, 98 will limit some degree of further bending of the frame 24 and joint. Note that the apertures 100 or the notches 98 have abutting edges, and when the device 24 of Dachgruber et al is flexed by a user, the abutting edges are capable of limiting flexion, and the degree of flexion is controlled by the user.

As for claims 3 and 18, note the flexible and inextensible membrane 37, 22 of Dachgruber et al (figure 2), and frame 24 can be fixed on and overlying membrane 37,22 against movement along the membrane . Note that in column 4, lines 11-16 , Dachgruber et al teaches that the recess 40 may be made substantially the same size as the tongue stiffener 24: when the recess 40 is made to have the same size as the tongue stiffener , the frame 24 or stiffener 24 is being fixed on (by hook 50 and structure 52) and overlying membrane 37, 22 against movement along the membrane (or the base). Also, note in column 3, lines 20-21, and lines 50-54, Dachgruber et al teaches that frame 24 maybe permanently or removable attached to the tongue 22,37 and maybe fixed at the lower end with a free upper end. On column 8, lines 22- 27, Dachgruber et al teaches that the tongue 22, 37 maybe a molded or stitched tongue, and a fabric maybe stretched over the tongue. Also, note in column 8, lines 60-66, Dachgruber et al teaches that the tongue (22) is flexible and non-rigid.

As for claim 8 note figure 1 of Dachgruber et al.

As for claim 9, note column 8, lines 60-63.

As for claim 14, Dachgruber et al teaches a shell 26 (figure 1) supported on a sole 28 , and rigid frame 24 includes a front support 22, 37 fixed on shell 26 over an instep area.

As for claim 16, note in column 4, lines 5-10, Dachgruber et al teaches that the structure of his device allows the footwear to be flexed up to an angle of 45 degreefrom its rest position.

As for claim 41, in figure 1 of Dachgruber et al teaches that rigid frame 24 is made of material defining a continous outer periphery along a length and with of the protective article.

As for claim 50, frame 24 of Dachgruber et al has a length extending in a direction between the opposed ends of the frame 24, the length being greater than the width between opposed transverse sides of the frame 24.

Claims 1-2, 4-5, 8-9, 14, 44 are rejected under 35 U.S.C. 102(b) as being anticipatedby Rathmell '(4,043,059).

As for claim 1, Rathmell shows every claimed feature of the claim including a rigid frame 4, 5 (figure 1) adapted to cover the joint, said rigid frame comprising means for allowing bending 4, 5 (note that stiffening member, shown in figure 4, in combination with rigid fins 5 allow bending of the protective article and bending of the joint along at least one bending direction through a predetermined angle of bending : the angle of bending can be determined by a user) , said means comprising at least one bending zone between opposed ends of the frame, said bending zone including at least one abutment 5 with opposed edges, said opposed edges being spaced apart a predetermined amount in a first and unbent position of the protective article and spaced

apart by an amount less than said predetermined amount in a second and bent position of the protective article, said abutment of said means for allowing bending comprising means for limiting bending of the frame (shown in figure 4) and limiting bending of the joint along said bending direction at said predetermined angle of bending, said rigid frame 4, 5 having a rigidity of a magnitude to avoid hyper- flexion of the joint beyond said predeterminedangle of bending while the protective article is in said second and bent position.

As for claim 2, note figure 1 that at least one abutment 5 of the bending zone includes at least one notch 4 substantially perpendicular to a bending plane; and the notch 4 is beveled to become closed for said predetermined bending angle so as to constitute said abutment to limit said bending of said frame.

As for claim 4, note that said bending zone includes an insert (see figure 4) constituted of a compressible material positioned in said beveled notch 4.

As for claim 5, note that the rigid frame 5 is extended on opposite ends of the bending zone by respective supports 1, 2, and the bending zone has a thickness (note figure 4) greater than a thickness of either of said supports 1 and 2.

As for claims 8 and 9, note that Rathmell teaches a ski boot 1, 2 with the rigid frame 5 is positioned, in an area of an ankle of a foot, on a front surface of the foot.

As for claim 14, Rathmell teaches a ski boot 1,2 includes a shell 1,2 supported on a sole (see figure 1) ; and the rigid frame 5 includes a front support fixed on said shell 1 over an instep area.

As for claim 44, Rathmell teaches plurality of notches 4 spaced apart in said bending zone, said limit of said bending of said frame 4, 5 being caused by an accumulation of bendings at each of said plurality of spaced apart notches.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.**

Claims 2, 4- 7, 17, 19-23, 25- 40, 42- 49, 51-52, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dachgruber et al (6,360,454) in view of Perotto et al (5,050,319), and/or Rathmell (3,968,578) , and /or Filice (6,381,877).

Note the comments above for the teaching of Dachgruber et al.

As for claim 2, Dachgruber et al does not mention if the notches 98, 100 are beveled .

However, Petrotto et al teaches beveled notches (transverse grooves 9') in a bending zone(figures 3 and 4) to increase resistance of foam 4 to deformation ; Filice teaches beveled notches 46, 48 (figure 5) to provide predetermined and limited bending angle in a bending zone; Rathmell teaches beveled notches 6 with stiffeners 8 configured to provide predetermined and limited bending angle in a bending zone (note figure 1). In view of the teachings of Petrotto et al, and/or Rathmell and/or Filice, it would have been obvious to one ordinary skill in the art at the time the invention was made to provide the notch(es) 98, 100 of Dachgruber et al with a beveled shape in order to provide predetermined and limited bending angle in a bending zone . Note in column 4, lines 5-10 ,Dagruber et al teaches that the structure of his device allows the foot wear to be flexed up to an angle 45 degree.

The provision of notches having beveled shape in a bending zone in order to provide predetermined and limited bending angle is well known in the art (for example, as taught by Perotto et al ,Rathmell , and Filice) , and does not provide any unobvious result, and therefor is not patentable over prior art.

As for claim 4, note the comments relative to claim 2 above for the combination of the teachings of Petrotto et al, and Rathmell and Filice . It appears that in this claim, applicant is referred to the embodiment of figure 4A : in this embodiment, applicant's structure is an insert constituted of a compressible material positioned in a "notch". Note that the insert 102 of Dachgruber et al (figure 1) is also made of compressible material positioned in a notch. In view of the teachings of the beveled notches of Petrotto et al, and/or Rathmell and/or Filice as discussed above, it would have been obvious to one ordinary skill in the art at the time the invention was made to provide the notch(es) 100 of Dachgruber et al with a beveled shape in order to cooperate with the compressible insert 102 of Dachgruber et al to provide predetermined and limited bending angle in a bending zone (note in column 4, lines 5-10 ,Dagruber et al teaches that the structure of his device allows the foot wear to be flexed up to an angle 45 degree). Also, it would have been obvious to one ordinary skill in the art at the time the invention was made to provide the notches 98 of Dachgruber et al with a beveled shape and with compressible inserts in order to provide predetermined and limited bending angle in a bending zone .

The provision of notches having beveled shape in a bending zone in order to provide predetermined and limited bending angle is well known in the art (for example, as taught by Perotto et al ,Rathmell , and Filice) , and does not provide any unobvious result, and therefor is not patentable over prior art.

Also, the provision of compressible inserts in beveled notches (which are not extending entirely through the frame within a bending zone) in order to provide predetermined and limited bending angle is well known in the art (for example, as

taught by Rathmell) , and does not provide any unobvious result, and therefor is not patentable over prior art.

As for claim 5, note that the rigid frame 24 of Dachgruber et al is extended on opposite ends of the bending zone by respective supports (figure 1), and note that the that the bending zone 20 of Filice (figures 4 and 5) has a thickness greater than a thickness of either of the supports 22, 23 and 24, 25. In view of the teaching Filice, it would have been obvious to one ordinary skill in the art at the time the invention was made to provide the bending zone of Dachgruber et al with a thickness greater than a thickness of either of the supports in order to provide the desired stiffness and the desired predetermined and limited bending angle in a bending zone.

As for claim 6, note envelope 22 , 26 and the shock –absorbing element 50, 45 , 40 (figure 1) of Dachgruber et al.

As for claim 7, note in figure 1 of Dachgruber et al that the shock –absorbing element 50 is positioned in pocket 40 affixed to envelope 22, or the shock –absorbing element (reference 46 in figure 1) is positioned in pocket 45 affixed to envelope 22 (note in column 3, lines 20-21, and lines 50-54, Dachgruber et al teaches that frame 24 maybe permanently or removable attached to the tongue 22,37 and maybe fixed at the lower end with a free upper end) .

As for claim 17, note that the bending zone of the frame 24 of Dachgruber et al is narrower than the supports.

As for claims 19 – 21, 26, 27-29, 31 -33, 37-39, note the comments relative to ALL the claims above for the combination of the teachings of Dachgruber et al , Petrotto et al, Rathmell and Filice. As didcussed above, note that the combination of the teachings of Dachgruber et al , and/or Petrotto et al, and/or Rathmell and/or Filice teaches all the recited structure and functions in these claims .

As for claim 22, note comments relative to ALL the claims avove, and note the compressible insert 102 of Dachgruber et al.

As for claims 23 and 34, note the comments relative to claim 4 above .

As for claim 25, note in figure 1 of Dachgruber et al that the bendable an substantially inextensible base 37, 22 is distinct of frame 24.

As for claim 30, note the comments relative to ALL the claims above, especially the comments relative to claim 2, for the combination of the teachings of Dachgruber et al , Petrotto et al, Rathmell and Filice. Note that in figure 1, Dachgruber et al teaches the structure as recited: an upper (the boot) having a high portion and a low portion, the high portion adapted to extend higher than the ankle of a wearer and the low portion adapted to extend along an instep of the wearer, a frame 24 comprising a tibia support, an instep support, and a bending zone between the tibia and instep supports.

While Dachgruber et al does not mention if the notches 100 or 98 are beveled, as discussed above, Rathmell teaches beveled notches 6 (which are not extending entirely through the frame). Petrotto et al and Filice also teach the beveled notches (note the comments relative to claim 2 above) . In view of the teachings of the beveled notches of Petrotto et al, and/or Rathmell and/or Filice, it would have been obvious to one ordinary skill in the art at the time the invention was made to provide the notch(es) 100 or the notches 98 of Dachgruber et al with a beveled shape in order to provide predetermined and limited bending angle in a bending zone (note in column 4, lines 5-10 ,Dagruber et al teaches that the structure of his device allows the foot wear to be flexed up to an angle 45 degree).

The provision of notches having beveled shape in a bending zone in order to provide predetermined and limited bending angle is well known in the art (for example, as taught by Perotto et al ,Rathmell , and Filice) , and does not provide any unobvious result, and therefor is not patentable over prior art.

As for claim 35, note that the frame 24 of Dachgruber et al is more rigid than the upper.

As for claim 36, note in figure 1 of Dachgruber et al that the frame 24 is fixed against sliding movement along the substantially inextensible base 37, 22 .

As for claim 40, note in figure 1 of Dachgruber et al that the upper (the boot) comprises a longitudinal opening and the tongue 37,22 extends across the longitudinal opening, and frame 24, as discussed above, is fixed to tongue 37, 22.

As for claims 42 -43, note the comments relative to claim 41 above.

As for claim 44, note that Dachgruber et al, Petrotto et al, Rathmell and Filice references each teaches plurality of notches spaced apart in a bending zone; and all the above references also teach that the limit of the bending of the frame being caused by an accumulation of bending at each of the spaced apart notches.

As for claims 45-46, note the comments relative to claim 44 above.

As for claim 47, it appears that in this claim, applicant is referred to the embodiment of figure 4A : in this embodiment, applicant's structure is an insert constituted of a compressible material positioned in a notch which is not extending entirely through the frame.

Note the comments relative to ALL the claims above for the combination of the teachings of Dachgruber et al , Petrotto et al, Rathmell and Filice. Also, note that in figure 1, Dachgruber et al teaches an upper (the boot) having a high portion and a low portion, the high portion adapted to extend higher than the ankle of a wearer and the low portion adapted to extend along an instep of the wearer, a frame 24 comprising a tibia support, an instep support, and a bending zone between the tibia and instep supports. Note the insert 102 of Dachgruber et al (figure 1) is made of compressible material positioned in a notch.

While the notches 100 of Dachgruber et al extend through the frame, Rathmell teaches notches 6 which are not extending entirely through the frame and which include a compressible in insert 8 being positioned within the notches 6. Petrotto et al and

Filice also teach the notches (note the comments relative to claim 2 above) which are not extending entirely through the frame . In view of the teachings of Rathmell, and/or Petrotto et al, and/or Filice, it would have been obvious to one ordinary skill in the art at the time the invention was made to make the notch(es) 100 of Dachgruber et al not extending entirely through the frame in order to cooperate with the compressible insert 102 of Dachgruber et al to provide predetermined and limited bending angle in a bending zone (note in column 4, lines 5-10 ,Dagruber et al teaches that the structure of his device allows the foot wear to be flexed up to an angle 45 degree).

Also, note that the notches 98 of Dachgruber et al do not extend entirely through the frame. Rathmell teaches notches 6 which are not extending entirely through the frame and which include a compressible in insert 8 being positioned within the notches 6. In view of the teaching of Rathmell as discussed above, it would have been obvious to one ordinary skill in the art at the time the invention was made to provide compressible inserts for the notch(es) 98 of Dachgruber et al (which are not extending entirely through the frame) in order to provide predetermined and limited bending angle in a bending zone (note in column 4, lines 5-10 ,Dagruber et al teaches that the structure of his device allows the foot wear to be flexed up to an angle 45 degree).

The provision of notches having beveled shape in a bending zone in order to provide predetermined and limited bending angle is well known in the art (for example, as taught by Perotto et al ,Rathmell , and Filice) , and does not provide any unobvious result, and therefor is not patentable over prior art.

Also, the provision of compressible inserts in notches (are not extending entirely through the frame within a bending zone) in order to provide predetermined and limited bending angle is well known in the art (for example, as taught by Rathmell) , and does not provide any unobvious result, and therefor is not patentable over prior art.

As for claims 48, 49 note that Dachgruber et al teaches that the rigid frame 24 is made of material defining a continuous outer periphery along the length ad width of the

protective article, the notches 98, 100 not extending entirely through a width between the transverse sides of the rigid frame 24.

As for claims 51-52, note the comments relative to claim 50 above.

As for claim 54, note the comments relative to the claims above, and note in figure 1 that Dachgruber et al teaches this recited structure.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dachgruber et al (6,360,454) in view of Hallenbeck (5,327,662).

Note the comments relative to ALL the claims above for the teachings of Dachgruber et al.

Dachgruber et al teaches a means 120 b (figure 1) for a boot tightening means or a lacing to extend across the longitudinal opening of the boot above the tongue 22, 37, and over the rigid frame 24.

Dachgruber et al does not teach a rigid frame having a cooperating mechanism complementary of and engaged with the boot tightening means or a lacing.

Hallenbeck teaches a cooperating mechanism 6 complementary of and engaged with the boot tightening means or a lacing .

In view of the teaching of Hallenbeck, it would have been obvious to one ordinary skill in the art at the time the invention was made to provide the rigid frame 24 of Dachgruber et al with a cooperating mechanism complementary of and engaged with the boot tightening means or a lacing to assist in securing the boot tightening means or the lacing to the boot .

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dachgruber et al (6,360,454) in view of Gillis (4,770,648).

Dachgruber et al substantially teaches the claim invention, see rejection relative to ALL the claims above. Dachgruber et al does not teach a recess in an area for accommodating toes of a wearer.

Gillis teaches a recess (see figure 2) in an area for accommodating toes of a wearer.). In view of the teaching of Gillis, it would have been obvious to one ordinary skill in the art at the time the invention was made to provide the boot of Dachgruber et al with a recess in an area for accommodating toes of a wearer.

Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dachgruber et al (6,360,454) in view of Perotto et al (5,050,319), and/or Rathmell (3,968,578) , and/or Filice (6,381,877), and further in view of Hallenbeck (5,327,662).

Note the comments relative to ALL the claims above for the teachings of Dachgruber et al , Petrotto et al, Rathmell and Filice.

As for claim 53, Dachgruber et al teaches a means 120 b (figure 1) for a boot tightening means or a lacing to extend across the longitudinal opening of the boot above the tongue 22, 37, and over the rigid frame 24.

Dachgruber et al does not teach a rigid frame having a cooperating mechanism complementary of and engaged with the boot tightening means or a lacing.

Hallenbeck teaches a cooperating mechanism 6 complementary of and engaged with the boot tightening means or a lacing .

In view of the teaching of Hallenbeck, it would have been obvious to one ordinary skill in the art at the time the invention was made to provide the rigid frame 24

of Dachgruber et al with a cooperating mechanism complementary of and engaged with the boot tightening means or a lacing to assist in securing the boot tightening means or the lacing to the boot .

Response to Arguments

Applicant's arguments filed on 10/09/2007 have been fully considered but they are not persuasive.

Note the above comments and explanation for the combination of the structures and the teachings of Dachgruber et al , Petrotto et al, Rathmell and Filice..

Applicant argues that the structure of the stiffener of Dachgruber et al is not provided for limiting flexion of the boot, and the apertures 100, grooves 98 of Dachgruber et al are intended to allow flexing, not to limit-flexing. The examiner does not agree.

Dachgruber et al teaches a stiffener 24 which stiffens the flexing of the boot and includes stiffener adjuster 102 to adjust the degree of stiffness and the flexibility of the stiffener. With the combination of the apertures 100 and the stiffener adjuster 102 , by adjusting the degree of stiffness and the degree of flexibility of the stiffener with stiffener adjuster 102, Dachgruber et al teaches limiting the flexing of the boot .

Note that if applicant 's frame, as recited in the claims , can prevent hyper-flexing of a user's joint, so as the structure of the frame of Dachgruber et al, as discussed above.

In column 4, lines 5-10 ,Dagruber et al teaches that the structure of his device allows the foot wear to be flexed up to an angle 45 degree.

Also, note that the frame 24 of Dagruber et al can be bent at a predetermined angle : the bending angle can be determined by the user who can either flexes the device 24 by the user's foot or hand; where opposed edges of grooves 98 will limit further bending of the frame 24 and joint. Note that the notches or grooves have abutting edges, and when the device 24 of Dachgruber et al is flexed , the abutting edges are capable of limiting further flexion.

As discussed above, the modification of the shape of the notches , or the provision for the beveled shaped notches (for example, for the modification for the shape of notches or grooves 98, 100 of Dachgruber et al to assist in limiting the flexing of the frame) , is well known in the art, as taught by (Petrotto et al, Rathmell and Filice), and does not provide any unobvious result, and therefore is not patentable over prior art.

Applicant argues that Rathmel' 059 only modifies the flexibility of movement. As discussed above, note that the Rathmel'059 teaches the structures as recited which are capable of being flexed by a user at the comfortable angle(s) which is determined by a user. Rathmel'059 teaches a stiffening member (shown in figure 4) for adjusting the degree of stiffness of the sections 4, and therefore teaches to limit the flexing of the boot or the range of movement to a predetermined angle.

Applicant argues that applicant frame is rigid while Rathmel' 059 teaches the corrugated sections 4 which enhances flexibility. Note that the fins 5 of Rathmel' 059 are rigid fins (column 1, lines 40-42).

Note that just as applicant's rigid frame with notches in combination with the insert together providing both the degree of flexibility of the movement and the limiting range of movement to a predetermined angle, so as the structure of Dargruber et al and Rathmel.

Applicant argues that Rathmel' 059 fails to teach that the bending zone has a thickness (note figure 4) greater than a thickness of either of the supports 1 and 2. The examiner does not agree.

Note in figure 4 of Rathmel'059 that the bending zone has the fins 5 in combination with the stiffening member together the structure forms a thickness greater than the thickness of the supports 1 and 2.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as discussed above, the motivation to combine is clearly expressed .

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUONG Q. PHAM whose telephone number is (571)272-4980. The examiner can normally be reached on M-W, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on (571) 272 - 4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 14, 2008

/Huong Q. Pham/
Examiner, Art Unit 3772

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